



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,340	12/31/1998	MARIO DIMARCO	A62-17022-US	3803
128	7590	10/06/2005	EXAMINER	
HONEYWELL INTERNATIONAL INC.			DINH, TUAN T	
101 COLUMBIA ROAD			ART UNIT	
P O BOX 2245			PAPER NUMBER	
MORRISTOWN, NJ 07962-2245			2841	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 25

Application Number: 09/224,340  
Filing Date: December 31, 1998  
Appellant(s): DIMARCO, MARIO

**MAILED**

OCT 06 2005

**GROUP 2800**

\_\_\_\_\_  
Shalpar Shalpar  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 11, 2003.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

The rejection of claims 1-7 and 9-24 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Arts of Record**

US 5,375,724      Mazura      12/1994.

US 5,546,273      Harris      08/1996.

US 5,424,916      Martin      06/1995.

US 5,398,822      McCarthy      03/1995.

US 4,002,386      McKanzie      01/1977.

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 13, and 22-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Mazura (U. S. Patent 5,375,724).

**As to claims 1, 13, 22-24**, Mazura discloses an enclosure (1-figure 1, column 3, line 60) consider as an integrated modular cabinet as shown in figures 1-3 comprising:

a plurality of printed circuit board (PCB) modules (2-figure 1, column 3, line 61), wherein each PCB module (2) include a faceplate (8-figure 1, column 4, line 8), and a connector assembly (not shown, column 4, lines 11-13) disposed opposite said faceplate such that PCB module is enclosure; and

a chassis comprising top (6), bottom, and side walls (4), and front, wherein said front (see figure 1) of said chassis is configured with slots (3, column 4, lines 14-15) for receiving said plurality of PCB modules (2), wherein said PCB modules (2) and each faceplate (8) of said module create a seal with said chassis (column 1, lines 41-46, column 4, lines 1-32), and wherein said seal is resistant to EMI (figures 2-3, column 4, lines 25-31).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazura in view of Harris (U. S. Patent 5,546,273).

**As to claim 2**, Mazura discloses the cabinet as shown in figures 1-3, wherein each of said plurality of PCB module (2) further comprising:

said faceplate (8) having first and second ends (see figure 2); and

a first screw (19-figure 1, column 4, line 38) attached to the first end.

Mazura does not disclose a second screw attached to the second end.

Harris shows a PCB module (70) comprising a faceplate (74) having first and second screws (90) attached to first and second ends disclosed in figures 1-9.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have first and second screws attached to a faceplate of a PCB module as taught by Harris to employ the cabinet of Mazura in order to secure a PCB to a chassis of a system.

**As to claim 3**, Mazura discloses the cabinet as shown in figures 1-3 wherein said first screw (19) is configured as a jackscrew

**As to claim 4**, Harris shows first and second screw (90) are configured to clutch when said screws are tightened to apply a predetermined amount of force between said faceplate (8) of said printed circuit board module and said cabinet.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have first and second screws tightened to a faceplate of a PCB module as taught by Harris to employ the cabinet of Mazura in order to reduce force when secure a PCB to a chassis of a system.

**As to claim 5**, Mazura and Harris disclose and satisfy all of the claimed invention, except for the predetermined amount of force is about 70 pounds per screw. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the force to fastening the screw on the module for secured the module within cabinet, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**As to claims 19-20**, Mazura does not disclose said top and bottom panel (6) are configured with a plurality of guide rails (3) and each of one guide rail centrally mounted on the top and bottom panels.

Harris shows guide rails (52) mounted to top and bottom panels (30, 32) and centrally mounted on the top and bottom panels.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use guide rails in a chassis as taught by Harris to employ the

cabinet of Mazura in order to provide a guiding PCB modules inserted into the chassis of the system.

5. **Claims 6-7 and 9-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazura in view of Martin (U. S. Patent 5,424,916).

Mazura does not show the module having first and second printed circuit boards connected to the connector assembly without using ribbon cables, the connectors with surface mounted leads at position 90 degrees. Martin shows a module (30) having first and second printed circuit boards (32-34-figure 2) connected to a connector assembly (50) with 90 degrees lead and without using ribbon cables.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cabinet of Mazura and provide the module having more than one circuit board connected to the connector assembly as taught by Martin in order to reduce an electrical connection between two boards and backplane connector of the cabinet.

6. **Claims 14-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazura (U. S. Patent 5,375,724) in view of McCarthy et al. (U. S. Patent 5,398,822).

**As to claims 14-15**, Mazura discloses and satisfies all of the limitation of the claimed invention, except for showing the interchangeable of the top and bottom panels and two side of the panels, where a part of the cabinet may be relocated without

modification to the operation of the cabinet, such a relocation is considered to have been within the skill of art. *In re Japikse*, 86 USPQ 70 (1950).

**As to claims 16-17**, Mazura discloses all of the limitations of the claimed invention, except for said top and bottom panels are configured with a plurality of ventilation holes for cooling said PCB modules, and are sized to be resistant to EMI and RFI.

McCarthy shows the cabinet as shown in figures 2-6 wherein said top and bottom panels are configured with a plurality of ventilation holes (55-figure 3) for cooling said PCB modules (81), and wherein said ventilation holes are sized to be resistant to EMI and RFI.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plurality of ventilation holes as taught by McCarthy to modify the cabinet of Mazura in order to provide heat dissipation from modules and also against EMI.

**As to claim 18**, McCarthy discloses the cabinet including the hole and satisfies all of the limitation of the claimed invention, except for the size of the hole. It would have been obvious matter of design choice to make as small (diameter) as possible to reduce the amount of space, since such a modification would have involved a mere change in this size of the hole. The change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).



7. **Claims 12 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazura in view of Harris and further in view of McKenzie (U. S. Patent 4,002,386).

Mazura and Harris disclose and satisfy all of the claimed invention, except for the flexible handle mounted on the faceplate of the module. McKenzie teaches the flexible handle (24) as shown in figures 2 and 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cabinet of Mazura and Harris and provide the flexible handle as taught by McKenzie in order to handle the module inserted or removed from the cabinet.

**(11) Response to Argument**

**Applicant argues:**

(a) Regarding claim 1, 13, and 22-24, Mazura fails to disclose, "each PCB module include a faceplate and a connector assembly disposed opposite such that each PCB module is enclosed" It is incorrect. Mazura discloses a component-carrier (1-figure 1) as a chassis or an enclosure comprising PCB modules (2), each PCB module (2) comprises a faceplate (8) and a connector (not shown) disposed opposite the faceplate. Each PCB module is plug into the component-carrier to make communication each other (column 4, lines 11-13); therefore, each PCB module assembling the faceplate and the connector being formed one unit enclosure-module to insert into the component-carrier.

(a') Regarding claims 1, 23-24, Mazura fails to disclose, "said plurality of PCB modules create a seal with said chassis" It is incorrect. Mazura discloses in column 1,

lines 30-40 and column 4, lines 1-6 that modules (2) create a seal or seal to a component carries (1).

(b) Regarding claim 2, Mazura does not disclose, "first and second screws attached to first and second ends of a faceplate of a PCB module" It is incorrect. Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

Mazura discloses a first screw (19,20) attached to a first end of its faceplate (8), and also he discloses a handle (9) for fastening the module (2) when plug-in to the component carries (1). Further, in view of Harris, the combination of Mazura and Harris shows a second screw (90) attached to a second end of Harris's faceplate (74) to employ the PCB module of Mazura for purpose of fastening a faceplate to a PCB module.

(b') Regarding claim 3, Mazura does not disclose the first screw configured as a jack-screw. It is incorrect. Applicant's arguments with respect to claims 3 have been considered but are moot in view of the new ground(s) of rejection.

Mazura discloses the first screw (19) having head (20). The screw (19) can uses by hand or tools to fasten the screw to the faceplate as configure as a jack-screw.

(b'') Regarding claims 4-5, Mazura and Harris do not show a predetermined amount of force applied a load of about 70 pounds per screw. It is incorrect. The predetermined amount of force applied a load of about 70 pounds per screw would be optimum values of a result effective variable involves only routine skill in the art for

Art Unit: 2827

purpose of protecting screw would not to be break or damage when fasten into the faceplate.

(d) Regarding claims 19-20, Mazura does not disclose, "each slot in said chassis having guide rails mounted on top and bottom panels, and centrally mounted with respect to each slot" It is incorrect. Applicant's arguments with respect to claims 19-20 have been considered but are moot in view of the new ground(s) of rejection.

Mazura discloses top and bottom panels (6) having guide rails (3) for guiding the PCB module (2) inserted into the component carriers (1), see figure 1.

(e) Regarding claims 6-7, and 9-11, Mazura in view of Martin fail to show "the module having first and second printed circuit boards connected to the connector assembly without using ribbon cables, the connectors with surface mounted leads at position 90 degrees" It is incorrect. Martin shows a module (30) having first and second printed circuit boards (32-34-figure 2) connected to a connector assembly (50) with 90 degrees lead and without using ribbon cables.

(f) Mazura does not disclose "the interchangeable of top and bottom panels and two sides of the panels" It is incorrect. A part of a cabinet (or component carries 1) maybe relocated without modification to the operation of the cabinet, such relocation is considered to have within the skill of art.

(h) Mazura in view of McCarthy fail to show "said ventilation holes are less than about 0.09 inches in diameter" It is incorrect. It would have been obvious to have a ventilation hole having a diameter about 0.09 inches as taught by Mazura and McCarthy as matter of design choice to make as small (diameter) as possible to reduce the

Art Unit: 2827

amount of space, since such a modification would have involved a mere change in this size of the hole. The change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

(k) Mazura in view of Harris and further in view McKenzie fail to show " a flexible handle attached to the faceplate" It is incorrect.

Being employed in the PCB module of Mazura in view of Harris, McKenzie teaches a flexible handle (24) attached to the faceplate of the PCB module (22) disclosed in figures 1-3.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

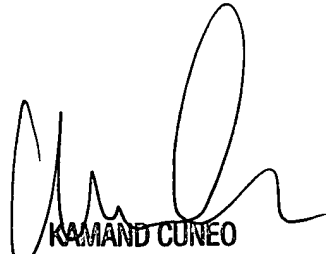
Tuan Dinh  
September 30, 2005

Conferees

  
Kammie Cuneo

  
Olik Chaudhuri

JOHN G SHUDY JR  
HONEYWELL INC  
HONEYWELL PLAZA P O BOX 524  
MN12 8251  
MINNEAPOLIS, MN 55440-0524

  
KAMMIE CUNEO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800